CLAIMS

What we claim is:

A treated substrate comprising

a finish comprising compounds selected from the group consisting of metal particlecontaining compounds, metal ion-containing compounds, metal-ion generating compounds, and any combinations thereof, and

a substrate selected from the group consisting of a yarn, a fabric comprised of individual fibers, and a film;

wherein said finish is adhered to at least one portion of the surface of said substrate; wherein said at least one portion of said treated substrate retains at least about 30% of said adhered to finish after 10 washes as performed in accordance with the wash procedure of AATCC Test Method 130-1981; and

wherein said treated substrate is electrically non-conductive; and wherein said finish exhibits antimicrobial properties.

- 2. The treated substrate of Claim 1 wherein said substrate is an individual yarn.
- 3. The treated substrate of Claim 1 wherein said substrate is a textile fabric.
- 4. The treated substrate of Claim 1 wherein said substrate is a film.

- 5. The treated substrate of Claim 1 wherein said finish comprises metal particles.
- 6. The treated substrate of Claim 1 wherein said finish comprises metal-ion generating compounds.
- 7. The treated substrate of Claim 5 wherein said finish comprises a metal selected from one of the transition metals.
- 8. The treated substrate of Claim 7 wherein said transition metal is selected from the group consisting of silver and zinc.
- 9. The treated substrate of Claim 6 wherein said finish comprises a metal selected from one of the transition metals.
- 10. The treated substrate of Claim 9 wherein said transition metal is selected from the group consisting of silver and zinc.
- 11. A process for producing the treated substrate of Claim 1 comprising the steps of
 - a) providing said substrate;
 - b) providing said finish composition;

- c) applying said finish composition to at least a portion of said substrate; and
- d) covering at least the treated substrate portion of step "c" with a binder formulation.
- 12. The process of Claim 11 wherein said substrate is selected from the group consisting of a textile fabric, a yarn, and a film.
- 13. A process for producing the coated substrate of Claim 1 comprising the steps of
 - a) providing said substrate;
 - b) providing said finish composition, wherein said composition also comprises a binder agent;
 - c) applying said finish composition to at least a portion of said substrate.
- 14. The process of Claim 13 wherein said substrate is selected from the group consisting of a yarn and a textile fabric.
- 15. A treated substrate comprising

a non-electrically conductive treatment comprising metal-containing compounds selected from the group consisting of metal particle-containing compounds, metal ion-containing compounds, and any combinations thereof.

and a substrate selected from the group consisting of a yarn, a fabric comprised of individual yarns, and a film;

3427 cent wherein said compound or compounds is adhered to at least a portion of the surface of said substrate; and

wherein said treated substrate exhibits a log kill rate for *Staphylococcus aureus* of at least 1.5 and a log kill rate for *Klebsiella pneumoniae* of at least 1.5, both as tested in accordance with AATCC Test Method 100-1993 for 24 hour exposure, after at least 10 washes, said washes performed in accordance with the wash procedure as part of AATCC Test Method 130-1981.

- 16. The treated substrate of Claim 15 wherein said substrate is an individual yarn.
- 17. The treated substrate of Claim 15 wherein said substrate is a textile fabric.
- 18. The treated substrate of Claim 15 wherein said substrate is a film.
- 19. The treated substrate of Claim 15 wherein said finish comprises metal particles.
- 20. The treated substrate of Claim 15 wherein said finish comprises metal-ion generating compounds.
- 21. The treated substrate of Claim 19 wherein said finish comprises a metal selected from one of the transition metals.

- 22. The treated substrate of Claim 21 wherein said transition metal is selected from the group consisting of silver and zinc.
- 23. The treated substrate of Claim 20 wherein said finish comprises a metal selected from one of the transition metals.
- 24. The treated substrate of Claim 23 wherein said transition metal is selected from the group consisting of silver and zinc.
- A process for producing the treated substrate of Claim 15 comprising the steps of a) providing said substrate;
 - b) providing said finish composition;
 - c) applying said finish composition to at least a portion of said substrate; and
 - d) covering at least the treated substrate portion of step "c" with a binder formulation.
- 26. The process of Claim 25 wherein said substrate is selected from the group consisting of a textile fabric, a yarn, and a film.
- 27. A process for producing the coated substrate of Claim 15 comprising the steps of
 - a) providing said substrate;
 - b) providing said finish composition, wherein said composition also comprises

a binder agent;

- c) applying said finish composition to at least a portion of said substrate.
- 28. The process of Claim 27 wherein sald substrate is selected from the group consisting of a yarn and a textile fabric.